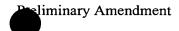


Listing of Claims

- 1. (Currently Amended) A catheter which is intended especially for use in MR imaging and which includes
 - a catheter sleeve (2),
- a hollow guide channel or lumen-(3) within the catheter sleeve-(2) for receiving a medical instrument, and
- two electrical conductors-(4) which are enclosed by a cable sheath-(5) of a dielectric material and serve for the transmission of RF signals within the catheter sleeve (2), the dielectric material having a relative permittivity (ε_r) smaller than 4, the diameter of the electrical conductors-(4) being between 5 and 50 μ m, notably between 10 and 30 μ m, and the distance between the electrical conductor-(4) being smaller than 300 μ m, in particular smaller than 200 μ m.
- 2. (Currently Amended) A catheter as claimed in claim 1,-characterized in that wherein the dielectric material has a relative permittivity which is smaller than 2.3, notably smaller than 1.5.
- 3. (Currently Amended) A catheter as claimed in claim 1,-characterized in that wherein the dielectric material is an aerated synthetic material, notably FP301040 or FP301020 as marketed by Good Fellow.
- 4. (Currently Amended) A catheter as claimed in claim 1, characterized in that wherein the two electrical conductors (4) are also arranged to conduct a direct voltage to the voltage supply of a medical instrument arranged on or in the catheter-(1).
- 5. (Currently Amended) A catheter as claimed in claim 1, characterized in that wherein it includes means for catheter localization during an intervention, notably said means fro catheter localization including at least one active coil (4, 5) which is arranged on or in the catheter-(1).



- 6. (Currently Amended) An MR device for forming MR images of an object to be examined, intended especially for intravascular interventional MR imaging, which device includes:
- a main field magnet system-(16) for generating a homogeneous steady main magnetic field,
 - a gradient coil system (17, 18, 19) for generating magnetic gradient fields,
 - an RF coil system-(14) for the exciting an examination zone,
- a receiving coil system (14, 12) for receiving MR signals from the examination zone,
- a catheter-(1) as claimed in claim 1-for introducing a medical instrument into the object-(10) to be examined, notably-said catheter comprising:

an active coil (4, 5) which is arranged on or in the catheter (1) for the purpose of catheter localization, local excitation of the examination zone and/or local reception of MR signals; two electrical conductors which are enclosed by a cable sheath of a dielectric material and serve for the transmission of RF signals within the catheter sleeve, the dielectric material having a relative permittivity (ε_r) smaller than 4, the diameter of the electrical conductors being between 5 and 50 μ m and the distance between the electrical conductor being smaller than 300 μ m; and

- a control unit-(23) for controlling the MR device.